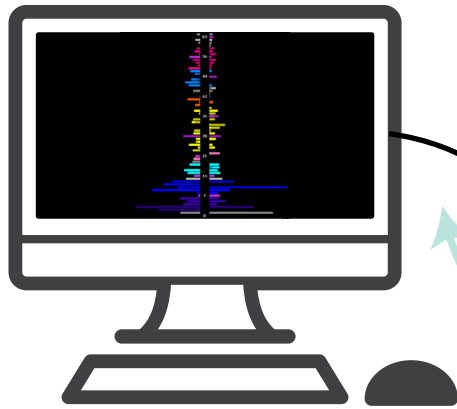


# FEEDBACK LOOP



**Voltage Fluctuations** are measured in the EEG signal. The NeuroOptimal® software analyzes the data 256 times per second detecting changes in 4 ways we call the DIFS:

- Duration
- Intensity
- Frequency
- Shift

'External noise' is ignored by NeuroOptimal®'s robust de-noising process, which will discard all signals that are not made by the brain



The **zAmp** starts the process of feedback by:

- Amplifying EEG signal
- Changing the output from analog to digital



**Sensors - Active** at C3 & C4,  
**Reference** at ear tops &  
**Ground** on ear lobe

Specialized **Conductive Paste** called 10/20 (for use with our read-only sensors)

The 'information' is fed-back to the individual by slight interruptions in the media stream. The central nervous system (CNS) responds and adjusts as a natural indication that changes in the internal or external environment have been made

- **Personal Transformation** occurs when the individual trains towards flexibility and resilience to what they perceive as internal or external turbulence

## NeuroOptimal® Dynamical Neurofeedback®:

Communicates with the CNS by using its own unique language, through 'detecting differences'

Has no current, frequency, vibration or light/sound put into the brain during a Session

Is '**Diagnostically Agnostic**' – all expertise is built into the software; diagnostic tools are not needed for this process

Is a training program for all people of all ages with any symptoms